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**Huang**

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(54) **HUB MOTOR ARRANGEMENT OR  
VEHICLE WITH HUB MOTOR  
ARRANGEMENT**

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patent is extended or adjusted under 35  
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This patent is subject to a terminal dis-  
claimer.

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CPC ..... **F16H 1/46** (2013.01); **B60K 7/0007**  
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(58) **Field of Classification Search**

None

See application file for complete search history.

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**ABSTRACT**

A ride-on vehicle, such as for a child, includes a vehicle body and one or more wheels that support the vehicle body relative to a surface. At least one of the wheels includes a hub motor arrangement that provides a drive torque for propelling the vehicle. The hub motor arrangement includes a housing defining an interior space. An axle or other mounting element(s) define an axis of rotation of the housing. Preferably, the axle or other mounting element(s) do not pass completely through the housing. A motor drives the housing through a transmission. Preferably, the motor is a standard, compact motor that is positioned on the axis of rotation and can be laterally offset from a central plane of the housing. In some embodiments, a traction element is carried directly by the housing.

**35 Claims, 24 Drawing Sheets**

